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**Claims.**

**[Claim 1] (Currently Amended)**

1. A method of addressing a continuous range of locations in physical media that employs interference of at least two waves propagating in continuous media, wherein fronts of these waves meet at a location inside the media and said location uniquely identifies a location within said continuous range.

**[Claim 2] (Currently Amended)**

2. A method of claim 1, wherein at least two waves propagate in the same direction with different phase velocities and fronts of these waves meet at a location inside the media and said location uniquely identifies a location within said continuous range.

**[Claim 3] (Currently Amended)**

3. A method of claim 1, wherein said waves propagate through distinct passes, and wherein fronts of these waves interfere in a media that reveal nonlinear properties and said interference uniquely identifies a location within said continuous range.

**[Claim 4] (Currently Amended)**

4. A method of claim 3, wherein there are at least two waves propagating in the same direction with different phase velocities.

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[Claim 5] (Currently Amended)

5. A method of claim 1, wherein at least two waves have shape of pulses with defined length.

[Claim 6] (Originally filed)

6. A method of claim 2, wherein at least two waves have shape of pulses with defined length.

[Claim 7] (Currently Amended)

7. A method of claim 3, wherein at least two waves have shape of pulses with defined length.

[Claim 8] (Originally filed)

8. A method of claim 4, wherein at least two waves have shape of pulses with defined length.

[Claim 9] (Currently Amended)

9. A method of claim 5, wherein at least one of the pulses has Gaussian shape.

[Claim 10] (Currently Amended)

10. A method of claim 6, wherein at least one of the pulses has Gaussian shape.

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[Claim 11] (Currently Amended)

11. A method of claim 7, wherein at least one of the pulses has Gaussian shape.

[Claim 12] (Currently Amended)

12. A method of claim 8, wherein at least one of the pulses has Gaussian shape.

[Claim 13] (Currently Amended)

13. A method of claim 3, wherein properties of said propagation media are nonlinear with respect to amplitude of at least one of said waves.

[Claim 14] (Originally filed)

14. Method of claim 2, wherein properties of said propagation media nonlinear with respect to amplitude of at least one of said waves.

[Claim 15] (Currently Amended)

15. An artificially produced structure capable of propagating particular types of waves with low attenuation and utilizing method of claim 1 to dynamically alter a physical property of confined volume of compositing structure.

[Claim 16] (Originally filed)

16. An artificially produced structure of claim 15, wherein said structure has at least one of its base dimensions (height, width, length) 100 times larger than

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other two dimensions.

[Claim 17] (Originally filed)

17. An artificially produced structure of claim 16 that can be bent to form a loop with minimal diameter less than 5 mm.

[Claim 18] (Currently Amended)

18. An artificially produced structure of claim 15 that shaped like a fiber and arranged to cover two-dimensional surface using ordered pattern.

[Claim 19] (Originally filed)

19. A structure of claim 18 where in said pattern resembles woven fabric.

[Claim 20] (Originally filed)

20. A structure of claim 18 where in said pattern is parallel lines.

[Claim 21] (Originally filed)

21. A structure of claim 19 where in said pattern is rows and columns, wherein angle between the rows and the columns may be other than  $\pi/2$ .

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[Claim 22] (Originally filed)

22. An artificially produced structure of claim 15 , wherein said structure has at least one of its base dimensions (height, width, length) 100 times smaller other dimension.

[Claim 23] (Currently Amended)

23. An artificially produced structure capable of propagating particular types of waves with low attenuation that uses method of claim 1 to query a value of predefined physical property of dynamically selected confined volume of compositing structure.

[Claim 24] (Currently Amended)

24. A structure of claim 15 that contains materials with electro-optical properties and said properties are dynamically changeable.

[Claim 25] (Canceled)

[Claim 26] (Currently Amended)

26. A structure of claim 15, wherein said composing structure contains array of discrete microstructures.

[Claim 27] (Canceled)